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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
DICKERSON, CHAD S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/688,911	YOON, TAE-JUNG	
	Examiner	Art Unit	
	CHAD DICKERSON	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *04 May 2012*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *42 and 43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *42 and 43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/4/2012 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 37-41 have been considered but are moot in view of the new ground(s) of rejection. The amendment to the claims has necessitated a new ground(s) of rejection. However, the references of Tsukamoto ‘033, the description of the related art, Kanno ‘’609 and Okubo ‘471 are still being applied to the claim language. The Applicant asserts within the arguments that the (1) Kanno reference does not suggest where if an interface card is installed in an apparatus, it is determined whether a driver program corresponding to the interface card is stored in the storage unit in the apparatus. The Applicant also stated (2) the present invention operates an interface card using a memory card if the memory card is installed in a slot even after an error is found. Lastly, (3) the Applicant needed more clarification on how Kanno modifies the Tsukamoto references. Examiner respectfully disagrees with the first assertion and will briefly address the other assertions below.

Regarding the first assertion, the Kanno reference is not used to perform the alleged undisclosed feature. This is performed by the main reference, Tsukamoto. AS disclosed in the cited paragraphs below in the rejection (¶ [174] and [178]-[183]), the main reference detects if the install memory card containing the program to drive the interface card is installed within the copier slots. If the two cards contradict one another, this is notified to the user through the display. If the correct program IC card is installed within the copier that works with the interface card, the function associated is performed. Thus, Kanno is not being used to disclose this feature. Kanno is being used to display a list of functions stored on an installed card within a copier[1].

When viewing the Kanno reference, a card is installed in a slot and the programs used to drive a copier to perform a function are listed on the copier display. This is used to modify the Tsukamoto reference since the main reference discloses a program IC card or a storage card able to store multiple programs.

> [0184] Another structure may be employed in which a variety of programs is stored in the program IC card and the inserted interface card is identified to read the corresponding program. A program IC card storing a program for each interface card may be prepared.

The cited portion above of the Tsukamoto PGPub discloses an IC card with multiple programs. In response to the inquiry regarding clarification of the modification (3), the Kanno reference would modify the main reference by allowing a user to view the multiple programs stored on the Tsukamoto program IC card that can be chosen if

[1] See Kanno '609 at col. 10, ll. 5-36, which can be seen below in the rejection.

actuated. The system can then check to see if the appropriate interface card corresponds with a selected program. This is the purpose and explanation of the modification of the main reference with the Kanno reference.

Lastly, with the mention of the present invention operating an interface card using a memory card if the memory card is installed in a slot even after an error is found, the Examiner would like to briefly state that Tsukamoto performs this as well. The system of Tsukamoto operates an interface card using a memory card if a memory card installed in a slot is the correct memory pertaining to the interface card after an error has been found. This can be found within the same cited portions of Tsukamoto '033 ¶ [175] and [178]-[183].

Therefore, in view of the above arguments, the rejection is maintained with the previously applied references.

3. Applicant's arguments filed 5/4/2012 have been fully considered but they are not persuasive. Regarding the 112 1st paragraph rejection of the claims is maintained. For example, when a system makes a determination that something cannot be operated, this is not necessarily an error. This can simply be a system that is designed to work in certain environment and does not operate when the environmental conditions are met. In this case, when a driver program is not stored in the internal storage unit, the system displays that the interface card cannot be operated. However, if the system tried to ignore this fact, the system might actually cause an error within the print system. For example, the system might try to communicate using LAN software on a modem card,

which would cause an erroneous function within the copier. Therefore the Examiner maintains the rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 42 and 43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In Applicant's specification in ¶ [31], the invention outputs a message stating that the installed interface card cannot be operated. This type of message is specific as to what the situation is with the card and the copier, which is different from the claim language. The claims state that a display shows a message indicating error. Since the specification does not mention anything about an error, but it explicitly mentions a message showing that a card is not able to be operated, the Examiner considers the claim language in claims 42 and 43 to be new matter.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto '033 (US Pub No 2002/0048033) in view of the Description of the Related Art, Kanno '609 (USP 6252609) and Okubo '471 (US pub 2003/0058471).

Re claim 42: Tsukamoto '033 discloses an image forming apparatus comprising:

a printing unit to execute printing functions (i.e. the communication apparatus comprises a recording portion that is able to perform printing functions; see fig. 1, paragraphs [0036]-[0038]);

a processor to control functions executed by the image forming apparatus (i.e. in the system of Tsukamoto, since the CPU (101) controls the apparatus with a program stored in ROM (102), this is considered as the main program being executed in the copier device; see paragraph [0029]),

a memory (i.e. the RAM or ROM is considered as the memory; see paragraphs [0029] and [0030]);

an operation panel unit (i.e. the operation portion (104) is considered as the operation panel; see paragraph [0031]);

a first interface connected with an external apparatus to receive print data (i.e. as seen in figure 1, the printer interface card (116) is used to connect a PC to a printing device to output data from a PC; see *p [0044]-[0050] and [0142]-[0165]); and

a second interface, separate from the first interface, to removably receive a portable storage unit providing an additional function related to the image forming apparatus that was not previously supported by the image forming apparatus (i.e. in the system, the program IC card (1304) stores a program that adapts the copier to use the interface card (1303) that is used to connect a PC to the image forming apparatus. The program IC card that introduces a program to use the interface card for communication between the PC and the copier is considered as an additional function related to the image forming apparatus that was not previously supported. If the function was previously supported or functioning on the copier, the program IC card (1304) would not be needed for communication between the two devices; see ¶ [0142]-[0165]),

wherein the processor determines whether the portable storage unit is installed in the second interface, and determines whether an execution file is stored in the portable storage unit is executable (i.e. in the system, a card storing data, which can be image data or a program, can be used. The program relating to the CPU (101) that reads the card can determine whether the card contains a program to execute a function or data that is simply exchanged between the memory card and RAM (103). The program IC card and interface card can be considered as a portable storage units since they both store either a function to be realized by a printer or the software to perform the function. Within the system, the software on the cards are corresponding to, or related with, the

main program on the copier since these introduced programs work with the main program to perform some function. In addition, the system determines if the card software can be executed with the programs available on the copier device; see figs. 26-28, 31-42; paragraphs [0030], [0115]-[0134] and [0171]-[0181]),

wherein if the execution file in the portable storage unit is not executable, the processor displays a message via operation panel (i.e. the user is notified on a display to change a card in order to overcome an error or contradiction because the program on the card is not able to be executed; see ¶ [0171]-[0181]);

wherein if it is determined that the portable storage unit is installed in the second interface and the execution file is stored in the portable storage unit (i.e. in the system, a card storing data, which can be image data or a program, can be used. The program relating to the CPU (101) that reads the card can determine whether the card contains a program to execute a function or data that is simply exchanged between the memory card and RAM (103). The program IC card and interface card can be considered as a portable storage units since they both store either a function to be realized by a printer or the software to perform the function. Within the system, the software on the cards are corresponding to, or related with, the main program on the copier since these introduced programs work with the main program to perform some function; see figs. 26-28, 31-42; paragraphs [0030], [0115]-[0134] and [0171]-[0181]),

wherein if a portable storage unit is connected for the first time, the processor determines whether the portable storage unit is an interface card or a memory card (i.e.

the system detects if the card inserted in the slot is a memory, LAN or modem card, which can be considered as interface and memory cards; see ¶ [0171]-[0181]),

wherein if the portable storage unit is determined to be an interface card, the processor checks if a driver program corresponding to the interface card is stored in the internal storage unit (i.e. the system detects that the card within the card slot is a LAN or NCU card and searches the copier body to see if it needs to acquire the program to run the interface card or if it already has the program within the copier body. It is assumed that a memory card is inserted in with another card. If the copier determines that it contains a program to run the LAN or modem card within a RAM or ROM, it will run the program; see ¶ [0171]-[0181]), and

wherein if the driver program is not stored in the internal storage unit, the processor displays a message for indicating error, and then, after a memory card in which the device driver is stored in a plug-in form is installed in the second interface (i.e. if the copier body determines that the LAN or modem card does not correspond with any driver programs in the copier's memory, the system then determines if the memory card also connected in the other card slot contains a driver program to run the LAN or modem card. If a contradiction or the cards occur, the user is alerted on the display about the contradiction or the error. The user can change either the interface card or the program IC card in order to perform an additional function. In the case of the example mentioned in the disclosure, the user can simply replace the old program IC card associated with a LAN with a program IC card associated with a modem. The program on the memory card is stored in a format that is able to be installed on the

copier device in order to execute a program, which is considered to be a plug-in form; see ¶ [0171]-[0181] and [0115]-[0131]), and

then the processor drives the interface card using the device driver stored in the memory card (i.e. when the copier acquires the correct program IC card that corresponds with the interface card, the copier processor drives the interface card to perform the associated function using the program within the program IC card; see ¶ [0171]-[0181] and [0115]-[0131]).

[0174] If the software, which is being used, cannot be adapted to the set card, this fact is notified to the OS 1710 through the external interface control module 1724 and the module controller 1712. The OS 1710 performs display on the display portion 1051 to urge the user to perform a required process, such as change of the corresponding program IC card or another card. The program IC card stores software shown in FIG. 40.

[0178] An examination is made as to whether or not the program and data in the memory of the body of the apparatus and set storage card (a memory card or the like) correspond to the set card and the body (S1404). At this time, a check is performed as to whether or not contradiction takes place (although a modem card is set, the program correspond to LAN) or an error (for example, a hardware error of the error or the program transferred to the body of the apparatus cannot be executed due to wanting of memory) occurs. If contradiction or an error takes place (S1404), an alarm of this fact is provided to the user through the display portion 105 to urge the user to change the card or the like to overcome the error or the contradiction (S1406). If the card is changed, the operation returns to step S1401. If no change takes place (S1407), then the process following step S1405 is continued.

[0179] If neither contradiction nor error takes place (S1404), or if the card is not changed although a contradiction or an error takes place (S1407), only drive software that can be used is operated (S1405), so that the set card is operated.

[0180] Then, facsimile communication or copying operation is performed in a mode selected by the operation performed by the user (S1408). Since the operation to be performed here is the same as that described above, it is omitted from this description. If no card is set, an operation, for example, communication, is performed that can be performed by only the body of the apparatus. When the card has been set and software corresponding to the card has been supplied, an operation using the set card is performed.

[0182] In the foregoing case where the card has been changed or where the card does not correspond to the drive software, the user is able to make the card and the software correspond to each other by changing the card and the software.

[0183] Although the foregoing description has been made about the structure in which the program and data are read from the memory card, such as the program IC card, an arrangement in which the program and data are stored in the interface card enables the number of the card slots to be reduced to one. In this case, the size of the apparatus can be reduced.

However, Tsukamoto '033 fails to specifically teach wherein the processor executes a plurality of programs in response to powering on of the image processing apparatus.

However, this is well known in the art as evidenced by the description of the related art. The description of the related art discloses wherein the processor executes a plurality of programs in response to powering on of the image processing apparatus (i.e. as disclosed in the description of the related art, upon receipt of the power supply, the control unit controls the entire operation of the printer, which includes controlling the multiple programs associated with the multiple features of the printer; see paragraph [0005] of Applicant's spec).

Therefore, in view of the description of the related art, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the processor executes a plurality of programs in response to powering on of the image processing apparatus, incorporated in the device of Tsukamoto '033, in order to control the entire operation of the printer (as stated in the description of the related art paragraph [0004]).

However, the combination of Tsukamoto and the description of the related art '033 fails to specifically teach the processor displays a menu via the operation panel unit to enable a user to select an execution of the additional function related to the image forming apparatus, wherein when the user selects the additional function via the operation panel unit, a plug-in program corresponding to the additional function selected by the user stored in the portable storage unit is executed, the processor displays a selectable menu through the operation panel, and if the menu is selected.

However, this is well known in the art as evidenced by Kanno '609. Kanno '609 discloses the processor displays a menu via the operation panel unit to enable a user to select an execution of the additional function related to the image forming apparatus (i.e. the device of Kanno is similar to Tsukamoto since both inventions involve executing programs introduced to a copier through an IC card (same field of endeavor). However, in Kanno '609, the system discloses showing a user a list, or menu, of functions that have been stored on the IC card and that can be selected and used in the copier device; see col. 10, ll. 5-36 below);

(59) As shown in FIGS. 6 and 7, the copier has a card holder 401 into which an IC card 402 is inserted, and an EEPROM 501 for storing data read in from the IC card 402. According to this embodiment, the IC card 402, on which PGA internal data has been stored, is inserted into the card holder 401 so that the stored content is read by the CPU 112, the read content (PGA internal data) is written to the EEPROM 501, and the PGA internal data is then downloaded to the corresponding PGA that has been selected.

(60) The operation of the color copier shown in FIGS. 6 and 7 will now be described.

(61) When the IC card 402 storing functions desired by the user is inserted into the card holder 401, a list of the functions that have been stored on the IC card are displayed on the display screen of the control panel 114. The user selects the necessary functions from this list. Data conforming to the tendency of function use by a specific user can be stored on the IC collectively beforehand in the manner of an "Office Function Set" or "Designer Function Set", etc.

(62) In addition to this method of selectively downloading information corresponding to required functions from data stored on the IC card, another method is to download the data sets from the IC card as they are and then use them. This means that the user need not perform the task of making selections.

wherein when the user selects the additional function via the operation panel unit (i.e. the user is able to select the functions in the list by operating the control panel (114) of the copier device and this selection is accepted as a request to execute a program; see fig. 6, col. 10, ll. 14-36); and

a plug-in program corresponding to the additional function selected by the user stored in the portable storage unit is executed (i.e. the copier receives this selection through the control panel and operates the selected feature in the manner related to the copier device; see fig. 6, col. 10, ll. 14-36),

the processor displays a selectable menu through the operation panel, and if the menu is selected (i.e. Kanno '609 discloses showing a user a list, or menu, of functions that have been stored on the IC card and that can be selected and used in the copier device; see col. 10, ll. 14-36).

Therefore, in view of Kanno ‘609, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of displays a menu via the

operation panel unit to enable a user to select an execution of the additional function related to the image forming apparatus, wherein when the user selects the additional function via the operation panel unit, a plug-in program corresponding to the additional function selected by the user stored in the portable storage unit is executed, the processor displays a selectable menu through the operation panel, and if the menu is selected, incorporated in the device of Tsukamoto '033, as modified by the description of the related art in Applicant's spec, in order to display a list of functions stored on an IC card (as stated in Kanno '609 col. 10, ll. 17-24).

However, the combination of Tsukamoto '033 in view of the description of the related art and Kanno '609 fails to specifically teach displays a message via operation panel unit a message that the execution file in the portable storage unit cannot be executed.

However, this is well known in the art as evidenced by Okubo '471. Okubo '471 discloses displays a message via operation panel unit a message that the execution file in the portable storage unit cannot be executed (i.e. like the systems of Tsukamoto and Kanno, a computer may transmit information to and from a copier or printing device for processing (same field of endeavor). However, the system of Okubo '471 specifically discloses that a host computer is notified that the image processing program candidate from a data storing medium is not operable on the copier device. This feature notifies the user at the computer of the non-operable program within the copier; see ¶ [0133]-[0135]).

Therefore, in view of Okubo ‘471, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of displaying a message via operation panel unit, a message that the execution file in the portable storage unit cannot be executed, incorporated in the device of Tsukamoto ‘033, as modified by the features of the description of the related art and Kanno '609, in order to send a notification to a user when the copier determines that the individual processing program to be downloaded is not operable within the device (as stated in Okubo ‘471 at ¶ [0018]).

Re claim 43: Tsukamoto ‘033 discloses an image forming apparatus comprising:

a printing unit to execute printing functions (i.e. the communication apparatus comprises a recording portion that is able to perform printing functions; see fig. 1, paragraphs [0036]-[0038]);

a processor to control functions executed by the image forming apparatus (i.e. in the system of Tsukamoto, since the CPU (101) controls the apparatus with a program stored in ROM (102), this is considered as the main program being executed in the copier device; see paragraph [0029]),

a memory (i.e. the RAM or ROM is considered as the memory; see paragraphs [0029] and [0030]);

an operation panel unit (i.e. the operation portion (104) is considered as the operation panel; see paragraph [0031]);

a first interface connected with an external apparatus to receive print data (i.e. as seen in figure 1, the printer interface card (116) is used to connect a PC to a printing device to output data from a PC; see *p [0044]-[0050] and [0142]-[0165]); and

a second interface, separate from the first interface, to removably receive a portable storage unit providing an additional function related to the image forming apparatus that was not previously supported by the image forming apparatus (i.e. in the system, the program IC card (1304) stores a program that adapts the copier to use the interface card (1303) that is used to connect a PC to the image forming apparatus. The program IC card that introduces a program to use the interface card for communication between the PC and the copier is considered as an additional function related to the image forming apparatus that was not previously supported. If the function was previously supported or functioning on the copier, the program IC card (1304) would not be needed for communication between the two devices; see *p [0142]-[0165]),

wherein the processor determines whether the portable storage unit is installed in the second interface, and determines whether an execution file is stored in the portable storage unit is executable (i.e. in the system, a card storing data, which can be image data or a program, can be used. The program relating to the CPU (101) that reads the card can determine whether the card contains a program to execute a function or data that is simply exchanged between the memory card and RAM (103). The program IC card and interface card can be considered as a portable storage units since they both store either a function to be realized by a printer or the software to perform the function. Within the system, the software on the cards are corresponding to, or related with, the

main program on the copier since these introduced programs work with the main program to perform some function. In addition, the system determines if the card software can be executed with the programs available on the copier device; see figs. 26-28, 31-42; paragraphs [0030], [0115]-[0134] and [0171]-[0181]),

wherein if it is determined that the portable storage unit is installed in the second interface and the execution file is stored in the portable storage unit (i.e. in the system, a card storing data, which can be image data or a program, can be used. The program relating to the CPU (101) that reads the card can determine whether the card contains a program to execute a function or data that is simply exchanged between the memory card and RAM (103). The program IC card and interface card can be considered as a portable storage units since they both store either a function to be realized by a printer or the software to perform the function. Within the system, the software on the cards are corresponding to, or related with, the main program on the copier since these introduced programs work with the main program to perform some function; see figs. 26-28, 31-42; paragraphs [0030], [0115]-[0134] and [0171]-[0181]),

wherein if the execution file in the portable storage unit is not executable, the processor displays a message via operation panel (i.e. the user is notified on a display to change a card in order to overcome an error or contradiction because the program on the card is not able to be executed; see ¶ [0171]-[0181]);

wherein the function corresponds to one of the programs executed by the processor in response to the powering on of the image forming apparatus (i.e. if the system does not contain a communication card, a user can add such a card to the

system. Once the card is added to the apparatus and power is supplied to the body of the apparatus, the system then recognizes the functions of the card and executes this function based on the user input and powering on of the apparatus; see figs. 21 and 22, ¶ [0084]-[0107]),

wherein the plug-in program does not have an independent interface and can be used by being connected with the corresponding one of the executed programs (i.e. the program on the IC card has to be connected to the main program running the overall printing device in order for the function associated with the IC card to operate; see paragraphs [0079], [0126]-[0129] and [0161]-[0173]) and

provides additional function to the one of the executed programs that was not previously supported by the one of the executed programs (i.e. in the Tsukamoto reference, an additional function card (1602) is used to introduce a function that was previously impossible for the CPU (101) to do without the function card. The additional function card introduces a new function to the system that was not previously performed before the card was brought into interaction with the copier's application program; see paragraphs [0079], [0126]-[0129] and [0161]-[0173]),

wherein if a portable storage unit is connected for the first time, the processor determines whether the portable storage unit is an interface card or a memory card (i.e. the system detects if the card inserted in the slot is a memory, LAN or modem card, which can be considered as interface and memory cards; see ¶ [0171]-[0181]),

wherein if the driver program is not stored in the internal storage unit, the processor displays a message for indicating error, and then, after a memory card in

which the device driver is stored in a plug-in form is installed in the second interface (i.e. if the copier body determines that the LAN or modem card does not correspond with any driver programs in the copier's memory, the system then determines if the memory card also connected in the other card slot contains a driver program to run the LAN or modem card. If a contradiction or the cards occur, the user is alerted on the display about the contradiction or the error. The user can change either the interface card or the program IC card in order to perform an additional function. In the case of the example mentioned in the disclosure, the user can simply replace the old program IC card associated with a LAN with a program IC card associated with a modem. The program on the memory card is stored in a format that is able to be installed on the copier device in order to execute a program, which is considered to be a plug-in form; see ¶ [0171]-[0181] and [0115]-[0131]), and

then the processor drives the interface card using the device driver stored in the memory card (i.e. when the copier acquires the correct program IC card that corresponds with the interface card, the copier processor drives the interface card to perform the associated function using the program within the program IC card; see ¶ [0171]-[0181] and [0115]-[0131]).

[0174] If the software, which is being used, cannot be adapted to the set card, this fact is notified to the OS 1710 through the external interface control module 1724 and the module controller 1712. The OS 1710 performs display on the display portion 1051 to urge the user to perform a required process, such as change of the corresponding program IC card or another card. The program IC card stores software shown in FIG. 40.

[0178] An examination is made as to whether or not the program and data in the memory of the body of the apparatus and set storage card (a memory card or the like) correspond to the set card

and the body (S1404). At this time, a check is performed as to whether or not contradiction takes place (although a modem card is set, the program correspond to LAN) or an error (for example, a hardware error of the error or the program transferred to the body of the apparatus cannot be executed due to wanting of memory) occurs. If contradiction or an error takes place (S1404), an alarm of this fact is provided to the user through the display portion 105 to urge the user to change the card or the like to overcome the error or the contradiction (S1406). If the card is changed, the operation returns to step S1401. If no change takes place (S1407), then the process following step S1405 is continued.

[0179] If neither contradiction nor error takes place (S1404), or if the card is not changed although a contradiction or an error takes place (S1407), only drive software that can be used is operated (S1405), so that the set card is operated.

[0180] Then, facsimile communication or copying operation is performed in a mode selected by the operation performed by the user (S1408). Since the operation to be performed here is the same as that described above, it is omitted from this description. If no card is set, an operation, for example, communication, is performed that can be performed by only the body of the apparatus. When the card has been set and software corresponding to the card has been supplied, an operation using the set card is performed.

[0182] In the foregoing case where the card has been changed or where the card does not correspond to the drive software, the user is able to make the card and the software correspond to each other by changing the card and the software.

[0183] Although the foregoing description has been made about the structure in which the program and data are read from the memory card, such as the program IC card, an arrangement in which the program and data are stored in the interface card enables the number of the card slots to be reduced to one. In this case, the size of the apparatus can be reduced.

However, Tsukamoto '033 fails to specifically teach one of the programs executed by the processor in response to the powering on of the image processing apparatus.

However, this is well known in the art as evidenced by the description of the related art. The description of the related art discloses one of the programs executed by the processor in response to the powering on of the image processing apparatus (i.e. as disclosed in the description of the related art, upon receipt of the power supply, the

control unit controls the entire operation of the printer, which includes controlling the multiple programs associated with the multiple features of the printer; see paragraph [0005] of Applicant's spec).

Therefore, in view of the description of the related art, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of one of the programs executed by the processor in response to the powering on of the image processing apparatus, incorporated in the device of Tsukamoto '033, in order to control the entire operation of the printer (as stated in the description of the related art paragraph [0004]).

However, the combination of Tsukamoto and the description of the related art '033 fails to specifically teach the processor displays a menu via the operation panel unit to enable a user to select an execution of the additional function related to the image forming apparatus, wherein the additional function selectable by the user corresponds to one of the programs executed by the processor, wherein when the user selects the additional function via the operation panel unit, a plug-in program corresponding to the additional function selected by the user stored in the portable storage unit is executed, and the processor displays a selectable menu through the operation panel, and if the menu is selected.

However, this is well known in the art as evidenced by Kanno '609. Kanno '609 discloses the processor displays a menu via the operation panel unit to enable a user to select an execution of the additional function related to the image forming apparatus (i.e. the device of Kanno is similar to Tsukamoto since both inventions involve executing

programs introduced to a copier through an IC card (same field of endeavor). However, in Kanno '609, the system discloses showing a user a list, or menu, of functions that have been stored on the IC card and that can be selected and used in the copier device; see col. 10, ll. 5-36);

> (59) As shown in FIGS. 6 and 7, the copier has a card holder 401 into which an IC card 402 is inserted, and an EEPROM 501 for storing data read in from the IC card 402. According to this embodiment, the IC card 402, on which PGA internal data has been stored, is inserted into the card holder 401 so that the stored content is read by the CPU 112, the read content (PGA internal data) is written to the EEPROM 501, and the PGA internal data is then downloaded to the corresponding PGA that has been selected.

> (60) The operation of the color copier shown in FIGS. 6 and 7 will now be described.
>
> (61) When the IC card 402 storing functions desired by the user is inserted into the card holder 401, a list of the functions that have been stored on the IC card are displayed on the display screen of the control panel 114. The user selects the necessary functions from this list. Data conforming to the tendency of function use by a specific user can be stored on the IC collectively beforehand in the manner of an "Office Function Set" or "Designer Function Set", etc.
>
> (62) In addition to this method of selectively downloading information corresponding to required functions from data stored on the IC card, another method is to download the data sets from the IC card as they are and then use them. This means that the user need not perform the task of making selections.

wherein the additional function selectable by the user corresponds to one of the programs executed by the processor, wherein when the user selects the additional

function via the operation panel unit (i.e. the user is able to select the functions in the list by operating the control panel (114) of the copier device and this selection is accepted as a request to execute a program; see fig. 6, col. 10, ll. 14-36); and

a plug-in program corresponding to the additional function selected by the user stored in the portable storage unit is executed (i.e. the copier receives this selection through the control panel and operates the selected feature in the manner related to the copier device; see fig. 6, col. 10, ll. 14-36), and

the processor displays a selectable menu through the operation panel, and if the menu is selected (i.e. Kanno '609 discloses showing a user a list, or menu, of functions that have been stored on the IC card and that can be selected and used in the copier device; see col. 10, ll. 14-36).

Therefore, in view of Kanno ‘609, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of the processor displays a menu via the operation panel unit to enable a user to select an execution of the additional function related to the image forming apparatus, wherein the additional function selectable by the user corresponds to one of the programs executed by the processor, wherein when the user selects the additional function via the operation panel unit, a plug-in program corresponding to the additional function selected by the user stored in the portable storage unit is executed, and the processor displays a selectable menu through the operation panel, and if the menu is selected, incorporated in the device of Tsukamoto ‘033, as modified by the description of the related art in Applicant’s

spec, in order to display a list of functions stored on an IC card (as stated in Kanno ‘609 col. 10, ll. 17-24).

However, the combination of Tsukamoto ‘033 in view of the description of the related art and Kanno '609 fails to specifically teach displays a message via operation panel unit a message that the execution file in the portable storage unit cannot be executed.

However, this is well known in the art as evidenced by Okubo ‘471. Okubo ‘471 discloses displays a message via operation panel unit a message that the execution file in the portable storage unit cannot be executed (i.e. like the systems of Tsukamoto and Kanno, a computer may transmit information to and from a copier or printing device for processing (same field of endeavor). However, the system of Okubo ‘471 specifically discloses that a host computer is notified that the image processing program candidate from a data storing medium is not operable on the copier device. This feature notifies the user at the computer of the non-operable program within the copier; see ¶ [0133]-[0135]).

Therefore, in view of Okubo ‘471, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of displaying a message via operation panel unit, a message that the execution file in the portable storage unit cannot be executed, incorporated in the device of Tsukamoto ‘033, as modified by the features of the description of the related art and Kanno '609, in order to send a notification to a user when the copier determines that the individual processing program

to be downloaded is not operable within the device (as stated in Okubo '471 at ¶ [0018]).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Suzuki '288 (USP 5027288) discloses systems in which a recording apparatus can have various recording functions altered and add various other functions using a portable storage means such as an IC card.

10. Murata '067 (USP 6330067) discloses a digital copying machine that has a card slot that is able to determine if a card is present in the card slot and the type of information present on the card to be download onto the copying machine and processed in the digital device.

11. Fukui (USP 5678135) discloses a system that updates an image forming apparatus with new programs that allow newly added features to function with the printing device. The programs may be provided from a network connected source or a storage medium inside the portable extension part connected to the apparatus to expand the printing device's features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAD DICKERSON whose telephone number is (571)270-1351. The examiner can normally be reached on 9:30-6:00pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/CHAD DICKERSON/
Examiner
Art Unit 2625